# Public Works (1913 ) Department.

8 APR 1913

**G.O. No.** 1719

**DATED** 14-3 **1913**.

The Notes
in this G.O. have been printed.

[Despatch Abstract.]

Sanctioning an estimate of Rs 3100 for Carrying two Syphon Culverts across the Nagavali channel taking off the Manjalar river Periakulam Taluq, Madura Dt.

[P. W. 9.
2,000—2-10-12.]

Indexed. 20/3..

## BACK PAPERS.

| G.O. | No. | Department. | Date. | G.O. | No. | Department. | Date. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## FURTHER PAPERS.

| G.O. | No. | Department. | Date. | G.O. | No. | Department. | Date. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

# Government of Madras.

PUBLIC WORKS DEPARTMENT.

IRRIGATION.
ACCOUNT.

*Recd.* } 1913. *Enclosures*

*Regd.* *Spare copies*

## G.O. No. 171 I., 14th March 1913.

### Syphon culverts

Sanctioning an estimate of Rs. 3,100 for constructing two -- across the Nagavalli channel taking off the Manjalar river, Periyakulam taluk, Madura district.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

**Irrigation.**
**Account.**

Read—the following papers:—

I

*Letter*—from S. B. Murray, Esq., Superintending Engineer, VI Circle.
*To*—the Chief Engineer for Irrigation.
*Dated*—Trichinopoly, the 4th February 1913.
*No.*—219-C.E./897 (*a*).

I have the honour to inform you that an estimate amounting to Rs. 2,410 for constructing two syphon culverts at sites marked A and B in the survey plan M. No. 195 of 1911, across the Nagavalli channel, taking off from above the anicut across the Manjalar river in the Periyakulam taluk, Madura district, was sanctioned in May 1911 by Mr. C. Mildred when Superintending Engineer of the Circle. During the execution of the work the Executive Engineer, Madura division, for reasons given in the report attached to the revised estimate, made some minor alterations in the sanctioned design such as provision of revetment at sides of the channel, greater depth of foundations for syphon culvert at A, etc. The alterations made are shown in red in the blue print plans herewith sent. Consequent on the above alterations and on the increased rates for some of the items now allowed in the revised estimate, the sanctioned amount has been exceeded by Rs. 690. As the amount of the revised estimate, viz., Rs. 3,100 exceeds my powers of sanction I request that you will approve the revised estimate, and obtain the sanction of Government at an early date.

Enclosure.

*Report to accompany the revised estimate for constructing two syphon culverts across the Nagavalli anicut channel in Periyakulam taluk.*

| | RS. |
|---|---|
| Amount of revised estimate ... ... ... ... ... ... | 3,100 |
| Amount of original estimate ... ... ... ... ... ... | 2,410 |

An estimate amounting to Rs. 2,410 was sanctioned in C.R. No. 81 of 1911–12 for the construction of two syphon culverts in the channel to dispose of the flood water from two cross drainages. Owing to the locality, which is out of the way, and to the high market rates, it was found difficult to get a piece-worker to take up the work. The work was therefore started only in February 1912.

*Syphon culvert A.*—While excavating foundations the sub-soil was found to be the bed of an old course of the jungle stream communicating direct with the river, and as the bed of the latter was on a higher level a heavy spring was met with. The bottom of foundations was found also to be silt. The depth of foundation originally provided was insufficient, and had to be taken down to 42·75, where hard soil was met with. Owing to the heavy spring, surki mortar was used instead of ordinary mortar as originally proposed, and cement had to be used in three or four places in the foundation. It was also found necessary to increase the proportion of lime to $1\frac{1}{4}$. The sub-soil at one end, for about 20 feet, was found to be of sand with heavy springs and it was found impossible to cope with the water even with a contractor's pump and six baskets. The site was therefore shifted 20′ farther down. In order to reduce the water, a ring bund of clay with

turfing had to be made and the abandoned portion of 20′ had to be filled in. Owing to the heavy rain about the end of May, the channel ring bund at the stream and channel end breached and the foundation pit was filled in. All these earthworks were redone, which increased the original cost of the earthwork, etc. Increased rate for earthwork was also found necessary.

*Syphon culvert B.*—The sub-soil at this site being of hard lime kunker no deviation in the masonry was necessary, except the using of surki mortar as per reasons mentioned above.

*General.*—The apron in front of two syphon culverts as provided in the original estimate was found not important and necessary and was therefore omitted. The original estimate does not provide revetments to the sides of the channel but are necessary and are provided for.

Data for the rates allowed other than those sanctioned accompany the revised estimate.

Early sanction is solicited.

V. HART,
*Executive Engineer, Madura Division.*

*21st December* 1912.

---

## II

## Note by the Chief Engineer for Irrigation, R.O.C. No. 432/13, dated 11th March 1913.

With his letter No. 219 C.E., dated 4th February 1913, the Superintending Engineer, VI Circle, submits an estimate amounting to Rs. 3,100 for constructing two syphon culverts across the Nagavalli channel taking off from the Manjalar river in Periyakulam taluk, Madura district, to carry the cross drainages over the channel.

2. It is stated that an estimate for Rs. 2,410 for the above works was sanctioned by the Superintending Engineer in 1911–1912 but when the work was put in hand in February 1912 the depth of foundations had to be increased as the sub-soil was found to be silt and sand with heavy springs at the site of the culvert A and surki mortar had to be used instead of ordinary mortar for the concrete in the foundations of both the culverts A and B. It is furter stated that the formation of leading channels and ring bunds not provided in the estimate caused an excess in the quantity of earthwork and that increased rates for that item and extra baling were also found necessary during execution. For the reasons mentioned above the estimate had to be revised to Rs. 3,100 showing an excess of Rs. 690 over the amount sanctioned by the Superintending Engineer.

3. In the circumstances explained the estimate is recommended for sanction.

H. E. CLERK,
*Chief Engineer for Irrigation.*

To the Joint Secretary to Government, Public Works Department
(Irrigation Branch), with the current file.

---

## Order—No. 171 I., dated 14th March 1913.

The following revised estimate is sanctioned in supersession of the estimate sanctioned by the Superintending Engineer in C.R. No. 81 of 1911–12:—

Provincial.
Irrigation.
43. Minor Works and Navigation.
Class IV. Minor Works for which neither Capital nor Revenue nor individual accounts are kept.
(*a*) In charge of Public Works Department.
Original works.
Madura Division.
Constructing two syphon culverts across the Nagavalli channel taking off the Manjalar river, Periyakulam taluk, Madura district.

| | RS. |
|---|---|
| Estimate ... ... ... ... ... ... ... ... | 3,100 |

2. The sanction accorded in paragraph 1 above is registered as No. 156 I. of 1912–13.

(True Extract.)

*Under Secretary to Government, P.W.D.,*
*Irrigation.*

To the Chief Engineer for Irrigation.
,, Superintending Engineer, VI Circle, with plans and estimates.
,, Accountant-General, Madras.

PUBLIC WORKS DEPARTMENT
(IRRIGATION BRANCH).

# NOTES CONNECTED WITH G.O. No. 171 I., DATED 14TH MARCH 1913.

[SUBJECT.—*Estimate for constructing two syphon culverts across the Nagavalli channel, Madura district.*]

*Note by the Chief Engineer for Irrigation, dated 11th March 1913, R.O.C. No. 432/13.*

*Under Secretary—*

A draft order is submitted for approval and orders to issue.

S.A.V.—10-3-13.
M.S.V.—10-3-13.

F. E. MORGAN—10-3-13.

Issue.

H. E. CLERK—11-3-13.

[Issued as G.O. No. 171 I., dated 14th March 1913.]

5

pp 4-5 From the S.E. VI No. 219 C.E. 897(a) d/4.2.13

4 C

Note by the Chief Engineer

for Irrigation. R.c 432/13

----d/11.3.13.

With his letter No.219 C.E., dated 4th February 1913, the S.E., VI Circle, submits an estimate amounting to Rs. 3,100 for constructing 2 syphon culverts across the Nagavalli channel taking off from the Manjalar river in Periyakulam taluk, Madura Dt to carry the cross drainages over the channel.

2 It is stated that an estimate for Rs. 2,410 for the above works was -- sanctioned by the S.E., in 1911-1912 but when the work was put in hand in

6 February

6 18

February 1912 the depth of foundations had to be increased as the sub soil was found to be silt and sand with heavy springs at the site of the culvert A and ~~concrete in~~ Surki mortar had to be used instead of ~~for~~ ordinary mortar for the concrete in the foundations of both the culverts A & B. It is further stated that the formation ~~extra earthwork~~ of leading channels & ring bunds not provided ~~on account of the necessity for cutting~~ in the estimate caused an excess ~~leading channels, formation of ring bund &c and~~ in the quantity of earthwork and that increased rates for ~~earth work~~ that item and extra baling were also found necessary during execution. For the reasons mentioned above the estimate had to be revised to Rs. 3,100 ~~or~~ showing an excess of Rs 690 over the amount sanctioned by the S.E.

3 In the circumstances explained the estimate is recommended for sanction.

8/3/13

10/3/13

10/3/13

To

The Joint Secy to Govt,

with the C.F.

7/3/13.

432/13

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

| *Tabling Abstract.* | *Cross References.* |
| --- | --- |
| Sanctg an estimate of Rs 3100 for constg 2 syphon culverts across the Nagavalli chl taking off the Manjalar River, Perakulam Tq, Madura Dt | Channel River |

Read the following :—

PPs-b-f Note by E.I.R. — 432/13 of 11.3.13.

6 8

Circulated to

Print Notn

ORDER—No. 1719, dated 14.3.13

Press.

The following revised estimate is sanctioned in supersession of the Estimate sanctioned by the S.E. in C.R. No 81 1911-12.

Provincial Irrigation

10

70

43 Minor works & Navigation.
Class IV Minor works for which neither capital nor Rev: nor Individual accounts are kept.

(a) In charge of P.W.D.
Civil: works.
Madura Dn.

Constructing 2 Syphon culverts across the Nagavathi chl: taking off the Manjalar river, Periyakulam taluk, Madura Dt.

Estimate Rs 3,101/

2 The sanction accorded in para 1 above is registered as No. 1563 of 1912-13.

Issue

DESPATCHED
28 APR 1913

To
The E. I. ✓
" S. E. VI ✓ D 19/3/13 } with plans & estes
" A. G. ✓

Issd. Rebased 29/4/13

mae 10.3.13

10/3/13

H.H. 11/3/13

P D.I.

D.I.

Lm 10/3/13

N 7